DOCUMENT RESUME

ED 387 979 EC 304 333

AUTHOR Ward, Thomas J., Jr.; And Others
TITLE Examination of a New Protocol for the Identification of At-Risk Gifted Learners.
PUB DATE Apr 92
NOTE 26p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, CA, April 1992).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Descriptive (141) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Ability Identification; Academic Achievement; Creativity; Early Childhood Education; Elementary Secondary Education; Eligibility; *Evaluation Methods; *Gifted; Gifted Disabled; *Gifted Disadvantaged; *High Risk Students; Intelligence; Profiles; Referral; Sex Differences; Socioeconomic Influences; *Student Evaluation
IDENTIFIERS Virginia (Tidewater)

ABSTRACT

This study, part of Project Mandala, created and tested an identification model which utilized a profile approach to identify gifted students (including those traditionally under-identified) in two age groups, 4-8 years and 11-14 years. The overall protocol included seven steps: (1) drawing nominations from a wide base including parents, school personnel, and community members; (2) individual assessment of children in several domains including general ability, specific academic achievement, and creativity; (3) use of multiple indicators within each domain; (4) use of data from existing records; (5) use of a profile approach in considering data; (6) use of the highest indicator within a domain for profiling purposes; and (7) use of a group process to make selection decisions. A total of 241 children were nominated from schools in the Tidewater, Virginia, area, of which 75.8 percent were African American, 16.2 percent had learning disabilities, 2.5 percent had English as a Second Language, and 61.9 percent came from low socioeconomic backgrounds. Results indicated that the protocol produced reliable decisions, and those decisions were not influenced by the background characteristics of gender, cultural background, referral source, exceptionality, or socioeconomic status. Factors which were found to contribute to selection decisions included general intellectual ability, specific academic achievement, and creativity. Attached are assessment forms, the assessment protocol, and data tables. (Contains 23 references.) (DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 387 979

Examination of a New Protocol for the Identification of At-Risk Gifted Learners

Thomas J. Ward, Jr.

Sandra C. Ward

Mary Landrum

and

James Patton

Project Mandala

The College of William and Mary

Paper presented at the annual meeting of the American Educational Research Association, San Francisco, April, 1992

EC 304333

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. Patton

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

BEST COPY AVAILABLE

Abstract

This research was conducted as a part of Project Mandala which has been funded through The Jacob K. Javits Gifted and Talented Students Education Act. One priority of Project Mandala is to identify gifted youth and adolescents (children in the 4 to 8 and 11 to 14 age ranges) who evidence low socioeconomic status, cultural differences, and/or other exceptionalities. The purpose of this research was to suggest and test a new identification protocol for selecting groups of students for an academically focused program for the gifted. Results indicated that the protocol produced reliable decisions, and those decisions were not influenced by the background characteristics of gender, cultural background, referral source, exceptionality, or SES. Factors which were found to contribute to selection decisions included general intellectual ability, specific academic achievement, and creativity.

BEST COPY AVAILABLE

Introduction

The current trend in education is to identify individuals who demonstrate special needs and to provide programs to address those needs. Gifted and talented youth are one special needs group who have been receiving special programming. The intent of such programs is to provide gifted and talented youth with the best opportunity to develop their potential. Maximizing the potential of gifted and talented individuals not only helps the individual, but it also benefits society by developing one of its most valuable resources.

The identification of individuals for placement in programs for the gifted and talented continues to be a problem. Although there have been many articles, monographs, and books written on how to identify children for gifted programs, few studies have systematically tested these approaches (Hoge, 1988; Richert, Alvino, McDonnel, 1982). Of particular concern is the underrepresentation of certain populations who are at-risk such as those who are poor, culturally diverse, or handicapped. Zappia (1989) reports that 81.4% of the enrollment in programs for the gifted is Anglo-American, and only 18.6% are from minority groups. It is estimated that minority groups may be underrepresented in programs for the gifted by 30 to 70% (Richert, 1985). If one accepts that giftedness is proportionally represented in every ethnic and cultural group and at all socioeconomic levels (Clark, 1983; Frasier, 1987; Gallagher, 1985; Maker & Schiever, 1989; Richert et al., 1982), then the underrepresentation of at-risk groups in programs for the gifted is a serious equity issue.

The identification of individuals for any type of special programming always raises questions of equity. As Hoge (1988) points out, programs for the gifted require considerable educational resources. Gifted education has been seen as "elitist" because of its use of valuable resources to provide for those who seem not to be in great need educationally. This perception is only fueled by the exclusion of disadvantaged groups who appear the most needy. Those responsible for using resources in programs related to the gifted and talented must be prepared to defend their expenditures by demonstrating the equity and benefits of their procedures.

BEST COPY AVAILABLE

Traditional approaches to the identification of students for gifted and talented programs have relied on a single intelligence or achievement test score and teacher recommendations (Frasier, 1990; Maker & Schiever, 1989; Richert et al., 1982). The problem of such an approach is that it limits nomination to the perception of one individual and reduces the complex construct of giftedness to performance on a limited battery. The use of restricted procedures to identify gifted and talented individuals is not consistent with most operationalizations which define giftedness as a complex construct which can manifest in several domains. The use of a single measure to represent a particular construct is known as mono-operationalism. The use of single operations both underrepresents constructs and contains irrelevancies (Cook & Campbell, 1979). Mono-operationalism leads to a poor representation of the construct and to lower validity. Despite this criticism, many states and local agencies continue to use a narrow range of methods to identify gifted and talented individuals.

The argument is that giftedness is simply too complex to be adequately specified by a single instrument. The obvious solution to this problem is to gather measures from several areas related to the giftedness construct. The solution is obvious, but the implementation becomes complicated when the issue of populations at-risk is considered. The concern over adequate representation in programs and the consideration of multiple factors has led to many recommendations for identification (see Baldwin, 1984; Frasier, 1987; Maker & Schiever, 1989; Renzulli, 1977; Tonemah & Brittan, 1985; and VanTassel-Baska, 1991). Most of the recommendations have centered on four key issues:

1. The use of multiple and non-traditional measures;
2. Recognition of the cultural attributes and factors in deciding on identification procedures;
3. A focus on strengths in non-academic areas, particularly in creativity and psychomotor domains;
4. Creation of programs that address non-cognitive skills and that enhance motivation (VanTassel-Baska, 1991).

BEST COPY AVAILABLE

Although many of the suggestions made by these and other authors would advance the identification process, one problem that remains is how to simultaneously incorporate these suggestions into an identification protocol. Perhaps the best solution is the profile approach.

Profile models, like the Frasier Talent Assessment Profile (F-TAP) (Frasier, 1990), when used as a guide, allow the end user to develop an identification protocol. The main benefits of profile approaches are flexibility and the ability to apply a multidimensional view of giftedness. In a profile approach, categories for the profile can be chosen to match the intended emphasis of the particular program. The specific instruments used as representations of the categories in the matrix can be decided upon by the user. This allows the tailoring of instruments to the specific groups being considered for inclusion in the program and accommodates better instruments as they become available. Instruments are not limited to standardized tests; it is possible to chart the results of quantitative as well as qualitative reports. Profile approaches can provide for the use of several instruments in each category. Similar data obtained from multiple sources can be used as checks on each other, and measures taken at different times can be plotted on the same profile to assess change. Information gathered on an individual does not have to be reduced to a single index. The data for each individual are plotted on a profile where collected information can be viewed.

Although profile models have the flexibility required to create an appropriate assessment system, there are several problems associated with their use. The flexibility that is offered by not specifying the particular instruments still leaves the problem of selecting appropriate instruments. Allowing the use of multiple measures within a domain can be a problem if those sources don't agree. Although, the examination of data from multiple sources over multiple areas helps to avoid problems of mono-operation and mono-method bias, the procedure for final selection is left to the individual user.

The intent of this research, through Project Mandala, was to create and test an identification model which would incorporate many of the suggestions from the gifted and assessment

BEST COPY AVAILABLE

literatures. A profile approach was used and attempts were made to resolve the issues mentioned above.

Methods

Protocol Construction

The initial step in this research was to suggest a protocol for use in the identification process. The task of selecting procedures and instruments may seem simple at first but becomes complicated when the factors of gender, culture, SES, and exceptionality are considered. Fortunately, much investigation and writing has been done on the assessment of each of these subpopulations.

As a starting point, literature on the assessment of at-risk individuals for programs for the gifted was searched using Psychlit and ERIC. This search uncovered more than three hundred articles, books, papers, and reports. Several of these sources deserve mention. *Critical Issues in Gifted Education* (Maker & Schiever, 1989) and *Psychoeducational Assessment of Minority Group Children* (Jones, 1988) are two books which provide detailed recommendations for how to deal with the assessment of at-risk populations for gifted programs. *Critical Issues in Gifted Education* was particularly helpful in identifying instruments and procedures recommended for use with each subpopulation. The National Report on Identification (Richert et al., 1982) has an extensive appendix which identifies many instruments that have been used with at-risk groups. Although many of the tests are currently outdated or revised since publication of the report, this group attempted to review many of the instruments used in the identification process. In addition to these sources, other assessment sources not specific to the area of gifted were consulted. Assessment books such as *Assessment of Children* (Sattler, 1988), *Assessment in Special and Remedial Education* (Salvia & Ysseldyke, 1988), *Best Practices in School Psychology* (Thomas & Grimes,1990), and the *Handbook of Psychological and Educational Assessment of Children: Intelligence and Achievement* (Reynolds & Kamphaus, 1990) were used to review current tests and issues in the assessment of children. The *Handbook of Psychological and Educational Assessment of Children* provided recent reviews and recommendations for dealing with issues central to the assessment of the at-risk groups targeted here.

BEST COPY AVAILABLE

After reviewing information from these sources, a preliminary plan for developing the candidate pool, the assessment protocol, and final selection of participants was constructed. The specific recommendations of the plan included: (1) drawing nominations from a wide base including parents, school personnel, and community members; (2) individual assessment of children in several domains including general ability, specific academic achievement, and creativity; (3) using multiple indicators within each domain; (4) using data from existing records; (5) using a profile approach in considering data; (6) profiling the highest indicator within a domain; and (7) using a group process to make selection decisions. This plan was circulated to a local and national review board. Following the feedback from the review boards, adjustments were made to the identification model, and a testing phase began.

Participants.

To establish the candidate pool, all school divisions in the Tidewater area of Virginia were solicited for participation. Twenty one school divisions representing urban and rural divisions of various sizes agreed to participate and nominate children to the project. Due to the expected large number of nominations and the logistics of testing, the 21 school divisions were divided into three cohorts. Community and school contacts were established in each school division, and project staff made presentations explaining the project and the characteristics of the children being sought for participation. It was explained that the intent of the project was to test a new protocol for the identification of gifted children in two age groups, 4 to 8 and 11-14. Project staff explained that children from diverse backgrounds were of particular interest. Parents, community members, and school personnel were encouraged to nominate children they believed to be gifted regardless of mitigating conditions. Additionally, advertisements were placed with local newspapers, community newsletters, church bulletins, and the mailings of local organizations. All persons nominating a child were requested to complete a generic nomination form that was created by combining statements from several existing forms including those for specific cultural groups. When possible culture specific nomination forms were also used.

BEST COPY AVAILABLE

A total of 241 children were nominated by school personnel, parents, and community members for inclusion in the project. The incidence of nomination for school personnel, parents, and community members were 86, 10, and 4 percent, respectively. Seventy five percent of those nominated fell into the lower age range, and a majority were female (54.8%). The children represented eight different cultural backgrounds, with the majority being African American (75.8%). Children with exceptionalities comprised 16.2% of those nominated with learning disabilities (4.5%) and speech problems (8.3%) being the most prevalent. The category of speech problems also contained the 2.5 percent who were identified as having English as a second language. As indicated by qualification for free and reduced lunch, most of those nominated came from low SES backgrounds (61.9%).

Assessment.

All those nominated were administered the individual battery consisting of instruments covering the domains of general intellectual ability, specific academic achievement, and creativity. A list of instruments included in the battery is presented in Table 1. Although there was a core battery, substitutions based on recommendations found in the literature were permitted. These substitutions were mainly instruments judged to be better for a particular group of individuals than those specified in the core battery.

In addition to the individual battery, information was gathered from parents, schools, and the community. School records were accessed for previous academic history and standardized test scores. Teachers were asked to complete the Learning Characteristics, Motivational Characteristics, Creativity Characteristics, and Leaderships Characteristics components of the *Scales for Rating the Behavioral Characteristics of Superior Students* (Renzulli, Smith, White, Callahan, & Hartman, 1976); parents and community members were requested to complete a checklist and description form.

Information for each individual was placed on a single form that used a profile approach to present the data. For the areas of general intellectual ability, specific academic achievement, and creativity, the highest indicator within each domain was profiled with the other scores being

BEST COPY AVAILABLE

available if needed but not portrayed on the profile sheet. A copy of the profile sheet is located in Figure 1.

BEST COPY AVAILABLE

Selection.

A team of five individuals consisting of a coordinator of gifted programs, a university professor with a specialization in gifted education, two professors of special education, and the school psychologist who administered many of the individual intelligence tests was provided with the profiles and a broad set of rules and asked to decide which children should be offered a place in the project. Team members assessed the profiles individually and made decisions rating children as eligible, potentially eligible, and not eligible. The team then convened and made two decisions. First, the team made an intermediate decision of eligible, potentially eligible, and not eligible for each child. Once all of the intermediate decisions were made, the final team decision of whether to include or exclude a candidate was made. The team met on each of the three cohorts separately. To test the consistency of the method, two other teams replicated the selection process for the first cohort.

Results

The results of the agreement study from the first cohort will be presented first followed by the results based on the combined cohorts.

Agreement Study of the First Cohort.

Cohort 1 consisted of 82 children of which 51 were ultimately included in the project by the original selection team. This cohort did not differ significantly from the other two cohorts in terms of cultural background, gender, percentage from low SES background, incidence of exceptionalities, or referral source. After the original selection team had made their decisions, two other teams were asked to replicate the task. The two replication teams consisted of masters and doctoral level students enrolled in a masters level class in the area of Gifted Education. Team composition included one school psychologist, one special educator, two gifted educators, and one administrator. Although all of the team members had experience in their fields, they had less experience and training than the original selection team. These teams were provided with the same profiles and rules as those used by the original selection team. Like the original selection team, these teams produced individual decisions, intermediate team decisions, and final team decisions.

BEST COPY AVAILABLE

The first analysis examined the agreement among the individual decisions within the three selection teams. Table 2 presents the simple percentages of agreement and kappa coefficients of agreement (*K*m) for the three teams. *K*m is the multiple observer agreement statistic developed by Fleiss (1971) which is superior to simple agreement since it considers chance agreement and tests for statistical significance. The agreement among the team members for all three groups was beyond chance indicating that the individual decisions of the team members agreed. An interesting finding was that the the original selection team which had the most experience and expertise had the lowest level of agreement.

Table 3 presents the agreement of the intermediate and final decisions of the teams. Intermediate decisions represent the first level of team decision and final decisions represent the last team decision where the team had to decide whether each child was to be included or excluded from the project. The *K*m statistic for both sets of decisions indicate significant agreement among the teams. Although the *K*m statistic for the intermediate decisions is moderate the *K*m statistic for the final decisions is much lower. This indicates that the groups had more difficulty in producing a final decision. The low level of agreement in the final decisions is most likely due to the placements of the potentially eligible children. The accounts of team members indicated that the rules made individual decisions easier but when teams were forced to make the final decisions the rules provided little guidance which resulted in clinical judgement becoming more influential.

Combined Cohorts Results. A series of chi-squares was calculated to determine whether selection into the program was related to gender, cultural background, referral source, exceptionality, or SES background. Due to small samples for some categories, cultural background was collapsed to include African American, Asian, Hispanic, Anglo, and other. Similarly, exceptionality was collapsed to include children without exceptionalities, children with learning disabilities, children with speech and language problems, and children with other exceptionalities.

Tables 4 through 8 present the results of the chi-square analyses and descriptive percentages for each of the background variables. None of the chi-square tests were significant indicating that

BEST COPY AVAILABLE

the background factors did not influence selection decisions. In addition to examining the influence ot background characteristics on the selection decision through chi-squares on the included and excluded groups, the composition of the nominated group was compared to the composition of the included group. Tables 4 through 8 also show how each background category was represented in the nominated group and the selected group. Comparison of these percentages show that the nominated and selected groups match closely for all of the background variables considered.

In order to determine which factors were contributing to the selection decisions, a discriminant analysis was run. The dependent variable was the final decision by the selection team and the classification variables were the measures of general intellectual ability, specific academic achievement, creativity, community rating, parent rating, gender, exceptionality, cultural background, SES, and four subscales from the *Scales for Rating the Behavioral Characteristics of Superior Students*. Within the areas of general intellectual ability, specific academic achievement, and creativity the highest indicator was used in the analysis. Exceptionality was dichotomized to differentiate those with any exceptionality from those with none. Two dichotomous variables were created to identify cultural background. The first variable identified African Americans and the second identified cultural backgrounds other than Anglo.

The discriminant function analysis produced one significant discriminant function (Eigenvalue = 1.4; χ^2 (11) = 159.04, p > .01). Table 9 presents the standardized canonical discriminant function coefficients, and Table 10 presents the classification results. The coefficients for general intellectual ability (.71), specific academic achievement (.50), creativity (.33), and Creativity Characteristics (-.40) were the variables shown to have the greatest influence on the final decision. This indicates that those included and excluded from the project can be distinguished mainly by standardized test information and the results of a teacher rating. The classification results show that the discriminant model was able to reproduce team decisions with 90 percent accuracy. Errors of inclusion and exclusion were approximately equal with 58 percent of the errors being inclusion errors and 42 percent being exclusion errors.

Discussion

The purpose of this research was to begin to test a proposed protocol for the identification of gifted and talented children. Of particular interest was the utility of the protocol with children who have not been identified in the past including those from varied cultural backgrounds, those with exceptionalities, and those from lower SES backgrounds. The protocol started with assembling a pool of possible candidates using a broad nomination process which involved parents, school personnel and community members. The multidimensional nature of giftedness was recognized by utilizing multiple measures in multiple domains. Instrument selection was based on student characteristics to allow for the optimum performance, and non-traditional as well as more traditional instruments were employed. Data were gathered from multiple sources and included subjective and objective assessments. Assessment of the data relied on a profile approach with final decisions made by a team of judges rather than by data reduction to a single index.

The nomination phase produced a pool of potential candidates that was typical of the school divisions participating but atypical of populations typically nominated to gifted programs. Candidates had varied cultural backgrounds and many exceptionalities. Overt requests not to overlook these individuals was effective in creating a varied nomination pool. Informing parents and teachers that gifted individuals are expected to be among these populations is encouragement for them to nominate. A disappointing outcome was the low number of community nominations and the comparatively low acceptance rate (50%) those nominations produced. The broadening of the candidate pool by allowing nominations from community member may not be the most effective method. Rather, the resources aimed at the community should be directed toward obtaining parent nominations. Parent nominations produced excellent results as evidenced by the 71 percent acceptance rate. Because of this high acceptance rate, an argument can be made that parent nominations should be solicited. Parents and teachers have the greatest amount of contact with children and are in a better position to know their abilities. This may help to explain why nominations from these sources were more prolific and accepted at higher rates.

The replication study indicated that individuals following a set of broad rules could judge the potential eligibility of children in a consistent fashion. Within all of the teams studied, the levels of agreement were beyond chance and fairly high. It is interesting to note that the team with the lowest agreement was the team with the highest level of training and experience. This finding is consistent with the results of research on the influence of multidisciplinary team members (Ward, Ward, & Clark, 1991).

Agreement among the intermediate decisions of the three teams indicated less consensus than for the individual decisions. Apparently each group developed a slightly different solution in producing its' intermediate decisions. This result may be due to the fact that the teams were not provided with rules to guide the team process. Although the level of agreement was lower for the intermediate decisions, it was still acceptable. The least amount of agreement was found in the final ratings. This lower level is most likely attributable to the placement of those who had been in the potentially eligible category. The rules provided to team members only referred to placement into three groups (clearly eligible, potentially eligible, and not eligible), therefore clinical judgement was needed to produce the final decisions. In their descriptions of the process, the groups indicated that the final stage was the most difficult, especially attaining consensus within the group on the rules to use in making the final decisions. Some indicated that more reliance was placed on the general ability measure, while others indicated that at-risk factors were considered. Regardless of the rules and considerations developed, final decisions were less reliable than individual or intermediate team decisions.

A criticism of programs for the gifted has been the underrepresentation of certain groups in programs for the gifted. In this study, overt requests that these individuals not be overlooked lead to a nominated pool which contained individuals with varied background characteristics. A positive finding was that gender, cultural background, referral source, exceptionality, and SES were not significantly related to the final decision of the selection team. At the final step, the characteristics of the pool of selected candidates matched those of the nominated candidates. Acquiring an initial pool of candidates which contained children with various backgrounds required direct requests not

to overlook those populations. Once these groups were represented in the pool of candidates, the data gathering and selection phase did not alter their representation.

A note of caution is necessary due to the low incidence in some of the specific background categories. Although cultural background was not found to effect the decisions of the selection team, the sample had few candidates from some cultural groups, and categories had to be collapsed for the analysis. The overall analysis had enough power to detect associations if they existed but representation in some categories was low. Broad generalizations to all cultural groups would not be warranted since all cultural groups could not be considered independently. Examination of exceptionalities was also based on collapsed categories due to low incidence for particular exceptionalities. Therefore, the same caution is necessary. Even with these cautions, the evidence of no background variable effects is encouraging.

A test to determine which factors did discriminate between those included and excluded from the project revealed that general intellectual ability, specific academic achievement, and creativity were important variables. Although the measure of general intellectual ability was the most important variable, these results indicate that the process of selecting the candidates did not rely on any single instrument. The need to consider more than one measure in the decision process confirms the multidimensional nature of the giftedness construct and provides evidence that judges are able to consider multiple measures in a profile approach. Since none of the background variables were found to be important in the discriminant function, there is further evidence that they did not impact the selection decision.

One puzzling finding in examination of the discriminant function was that two measures of creativity were involved in the discriminant function but in opposite directions. The measure of creativity derived from the Torrance Tests was positively related to selection with those scoring higher being more likely to be selected, while the creativity scale from the *Scales for Rating the Behavioral Characteristics of Superior Students* had the opposite relationship to the selection process with those scoring lower being more likely selections. The correlation between these two measures was nearly zero ($r = .08$, $p > .46$), indicating that they were measuring different

constructs. Interestingly, both were selected in the discriminant and both had similar relationships to general intellectual ability and specific academic achievement.

The findings of the current research are encouraging. Evidence was found that by combining many of the suggestions from the literature it is possible to design a protocol which will lead to the admission of underrepresented populations into programs for the gifted. Use of the profile approach produced judgements which were reliable, as evidenced by the significant kappa coefficients for the individual, intermediate team and final team decisions. Importantly the final decisions were not influenced by background characteristics of the candidates. It was found that consideration of general intellectual ability, specific academic achievement, and creativity did influence selection.

The positive findings justify further investigation. First, there is a need to represent other cultural groups and exceptionalities in numbers which will allow individual consideration. Second, the protocol should be implemented in a division as the model of identification. The current test of the protocol was done under the auspices of research and separate from the divisions' own gifted programs. Adopting this protocol as the method of selection may produce different nomination pools and selected samples. Third, the reliability of the final decisions was acceptable but low. A closer analysis of the interactions of the team at the final stage is warranted. A set of guides or rules many be necessary to help teams in moving to their final decisions. Fourth, the current investigation proposed the use of a specific set of instruments and data gathering methods, it would be important to study how the use of other instruments may effect results. Lastly, this investigation concentrated of the reliability aspect of the protocol. There is a need to test whether this protocol did select the best candidates, an issue of validity.

References

Baldwin, A. Y. (1984). *The Baldwin identification Matrix 2 for the identification of the gifted and talented: A handbook for its use.* New York: Trilluim Press.

Clark, B. (1983). *Growing up gifted* (3rd ed.). Columbus, OH: Merrill.

Cook, T.D. and Campbell, D.T. (1979). *Quasi-experimentation: Design and analysis issues for field settings.* Chicago: Rand McNally College.

Fleiss, J.L. (1971). Measuring nominal scale agreement among many raters. *Psychological Bulliten, 76,* 378-382.

Frasier, M. M. (1990). *The equitable identification of gifted and talented children.* Paper presented at the annual meeting of the American Educational Research Association, Boston, MA. April 19, 1990.

Frasier, M. M. (1990). Identification of gifted black students: Developing new perspectives. In C. J. Maker and S. W. Schiever (Eds.) *Critical Issues in Gifted Education: Defensible Programs for Cultural and Ethnic Minorities.* Austin, TX: Pro Ed.

Frasier, M. M. (1987). The identification of gifted black students: Developing new perspectives. *Journal for the Education of the Gifted, 10* (31, 155-180).

Gallagher, J. J. (1985). *Teaching the gifted child* (3rd ed.). Boston: Allyn & Bacon.

Hoge, R. D. (1988). Issues in the definition and measurement of the giftedness construct. *Educational Researcher, 17*(4), 12-16.

Jones, R. (1988). *Psychoeducational assessment of minority group children: A Casebook.* Reginald Jones (Ed). Berkley, CA: Cobb & Henry.

Maker, C. J. and Schiever, S. W. (1989). *Critical issues in gifted education: Defensible programs for cultural and ethnic minorities.* Austin, TX: Pro Ed.

Renzulli, J. S., Smith, L. H., White, A. J., Callahan, C. M., and Hartman, R. K. (1976). *Scales for Rating the Behavioral Characteristics of Superior Students.* Mansfield Center, CT: Creative Learning Press.

Reynolds, C.R. and Kamphaus, R.W. (1990). *Handbook of psychological and educational assessment of children: Intelligence and achievement.* New York: Guilford Press.

Richert, E. S. (1985). Identification of gifted students: An update. *Roeper Review*, 8, 68-72.

Richert, E. S., Alvino, J. J., and McDonnel, R. C. (1982). *National report on identification: Assessment and recommendations for comprehensive identification of gifted and talented youth.* Sewell, NJ: Educational Improvement Center-South.

Salvia, J. and Ysseldyke, J.E. (1988). *Assessment in special and remedial education* (4th ed.). Boston: Houghton Mifflin.

Sattler, J.M. (1988). *Assessment of children* (3rd ed.). San Diego: Jerome M. Sattler.

Thomas, J. and Grimes, J. (1990). *Best Practices in School Psychology - II.* Washington D.C: National Association of School Psychologists.

Tonemah, S. and Brittan, M. A. (1985). *American Indian gifted and talented assessment model.* Norman, OK: American Indian Research and Development, Inc.

VanTassel-Baska, J. (1991). Special populations of gifted learners. In M. Wang and M. Reynolds (Eds.) Review of Educational Research 77-101. London: Pergamon Press.

VanTassel-Baska, J., Patton, J., and Prillaman, D. (1989). Disadvantaged gifted learners at-risk for educational attention. *Focus on Exceptional Children, 22* (3), 1-15.

Ward, S.B., Ward, T.J., and Clark, H.T. (1991). Classification congruence among school psychologists and its relationship to type of referral question and professional experience. *Journal of School Psychology, 29*, 89-108.

Zappia, I.A. (1989). Identification of gifted Hispanic students: a multidimensional view. In C. J. Maker and S. W. Schiever (Eds.), Critical Issues in Gifted Education: Defensible Programs for Cultural and Ethnic Minorities. Austin, TX: Pro Ed.

Project Mandala
Gifted Learner Profile Assessment Form

Student Name _____ Sex_____ Age _____

School Division _____ Grade _____

Name of School _____

Referral Source (Circle one)

Teacher Administrator Parent Community Member

Parent/Guardian Name_____ Phone _____

Best time to contact _____

Home Address _____

Cultural background_____ Years in U.S. _____

Renzulli-Hartman Scales _____ At-Risk Group _____

Parent Rating _____ Community Rating _____

Student Code# _____

Descriptor	Standard Score	Percentile Rank	Area 1 General Ability	Area 2 Academic Achievement	Area 3 Creativity
Very Superior	130+	97+			
Superior	120-129	95-97			
High Average	110-119	75-95			
Average	90-110	50-75			
Below Average	89-	50-			

Other Pertinent Data:

Project Mandala
Gifted Learner Profile Assessment Form

Student Name _____ Sex_____ Age _____

School Division _____ Grade _____

Name of School _____

Referral Source (Circle one)

Teacher Administrator Parent Community Member

Parent/Guardian Name_____ Phone _____

Best time to contact _____

Home Address _____

Cultural background_____ Years in U.S. _____

Renzulli-Hartman Scales _____ At-Risk Group _____

Parent Rating _____ Community Rating _____

Student Code# _____

Descriptor	Standard Score	Percentile Rank	Area 1 General Ability	Area 2 Academic Achievement	Area 3 Creativity
Very Superior	130+	97+			
Superior	120-129	95-97			
High Average	110-119	75-95			
Average	90-110	50-75			
Below Average	89-	50-			

Other Pertinent Data:

_____

_____

_____

_____

_____

_____ _____

Signature of recorder title

Eligibility decision:

Clearly eligible_____ Potentially eligible_____ Ineligible_____

Table 1.

Student Assessment Protocol

Area	Grade Range Primary	Middle School
General Intellectual Ability	Matrix Analogies Test WPPSI-R WISC III	Standard Progressive Matrices WISC III
Academic Achievement	PIAT-R	PIAT-R
Creativity	Torrance Test of Creativity-Figural	Torrance Test of Creativity-Figural

Possible Substitutions:

Area 1: General Intellectual Ability.

Columbia Mental Maturity Scale - physically handicapped, deaf/hearing impaired.

Pictorial Test of Intelligence - speech and language difficulties, cerebral palsy.

Area 2: Academic Ability.

Woodcock-Johnson - can be used as a substitute for any child who has already been tested with the PIAT-R.

Diagnostic Achievement Battery - sight impaired, this test does not require vision.

Area 3: Creativity.

Torrance Tests of Creative Thinking - Verbal - may be used with any child who appears to have particular strength in the verbal area.

Table 2.

Agreement Within the Three Teams

Group	Number of Raters	Number of Categories	Raw Percentage of Agreement	Kappa
Original	5	3	79.02%	.67*
Replication 1	5	3	92.44%	.88*
Replication 2	5	3	86.71%	.79*

* probability less than .001

Table 3.

Agreement Among the Three Teams

Decision	Number of Raters	Number of Categories	Raw Percentage of Agreement	Kappa
Intermediate	3	3	83.74%	.74*
Final	3	2	73.98%	.48*

*probability less than .001

Table 4.

Relationship of Final Decision to Gender.

Gender	Excluded	Included	Percent Nominated	Percent of Included
Female	39.4%	60.6%	54.8%	55.6%
Male	41.3%	58.7%	45.2%	44.4%

χ^2 (1) = .089, p > .76

Table 5.

Relationship of Final Decision to Cultural Background.

Cultural Background	Excluded	Included	Percent Nominated	Percent of Included
African	42.3%	57.7%	75.8%	72.9%
Asian	16.7%	83.3%	5.0%	6.9%
Hispanic	38.6%	61.4%	3.0%	3.5%
Other	33.3%	66.7%	6.2%	6.9%
Anglo	41.7%	58.3%	10.0%	9.7%

χ^2 (4) = 3.81, p > .43

Table 6.

Relationship of Final Decision to Referral Source.

Referral Source	Excluded	Included	Percent Nominated	Percent of Included
Parent	29.2%	70.8%	10.1%	11.8%
Community	50.0%	50.0%	3.4%	2.8%
School	40.5%	59.5%	86.6%	85.4%

χ^2 (2) = 1.53, p > .46

Table 7.

Relationship of Final Decision to Exceptionality.

Exceptionality	Excluded	Included	Percent Nominated	Percent of Included
No Exceptionality	41.6%	58.4%	83.8%	81.9%
Learning Disabled	45.5%	54.5%	4.56%	4.17%
Speech and Language	30.0%	70.0%	8.30%	9.72%
Other exceptionality	25.0%	75.0%	3.32%	4.17%

χ^2 (3) = 1.92, p > .58

Table 8.

Relationship of Final Decision to SES.

SES	Excluded	Included	Percent Nominated	Percent of Included
Low	43.9%	56.1%	61.9%	57.6%
Average and High	33.0%	67.0%	38.1%	42.4%

χ^2 (1) = 2.82, p > .09

Table 9.

Results of the Discriminant Analysis.

Variable	Standardized Coefficient
General Intellectual Ability	.71
Specific Academic Achievement	.50
Creativity	.33
Learning Characteristics	.07
Motivational Characteristics	.27
Creativity Characteristics	-.40
Leadership Characteristics	-.10
Exceptionality	.21
Cultural Background 1	-.17
Cultural Background 2	.17
SES	.01
Parent Rating	.02
Community Rating	.09
Gender	.06

Table 10.

Results From Discriminant Function Classifications.

		Predicted Group[b]	
Actual Group	Cases[a]	Included	Excluded
Included	114	106 93%	8 7%
Excluded	75	11 15%	64 85%

[a] 52 cases were lost due to missing data.

[b] 89.9 percent of the cases were classified correctly.